

**REMARKS**

Applicants wish to thank the Examiner for considering the present application. Claims 1-5 are pending in the application. Claims 1-5 are rejected. Applicants respectfully request the Examiner to reconsider the rejections.

**REJECTION UNDER 35 U.S.C. § 103**

Claims 1-5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rosen (U.S. Pat. No. 4,831,619) in view of Diekelman et al. (U.S. Pat. No. 6,104,911). This rejection is respectfully traversed.

Claim 1 recites operating an area-wide broadcast downlink beam of a satellite for supporting point-to-point transmissions of one or more of the multiple spot beams whose transmission capacity has been exhausted. The Examiner points to Rosen, col. 4, ll. 30-41, Fig. 9, zones 31, 33, 35 and 37 as well as col. 2, ll. 19-40. Applicants admit that point-to-point and broadcast service is provided in the Rosen reference as described in col. 4.

On page 3 of the Office Action, the Examiner states that Rosen does not explicitly show that the downlink beam is used to support point-to-point transmissions of one or more of the multiple spot beams whose transmission capacity has been exhausted. Applicants have reviewed the Diekelman reference and can find no teaching or suggestion of a downlink beam used to support point-to-point transmissions of one or more of the multiple spot beams whose transmission capacity has been exhausted.

The Examiner points to Fig. 10 and column 14, lines 49-62 of the Diekelman reference for teaching a downlink beam that is used to support point-to-point transmissions of one or more of the multiple spot beams whose transmission capacity has been exhausted. After reviewing these lines, Applicants respectfully submit that the Diekelman reference does not teach a satellite

that includes an area-wide beam and point-to-point transmissions. The Diekelman reference is directed to a satellite system that includes more than one satellite. Column 14, lines 49-62 specifically recite augmenting capacity in a satellite system. Figure 10 illustrates the method for augmenting capacity. Column 14, lines 52-62 specifically recite, "Capacity augmentation can be used to provide extra capacity to certain regions during times of peak demand on system resources in a first region, then redistribute the capacity to other regions once the increased demands wanes in the first region and peaks in a second region at a second time." When continuing to read the passages corresponding to Fig. 10, which continue in line 43 of paragraph 14 and continue to line 42 of paragraph 15, it is clear that different satellites are used to change the capacity. Column 6, line 54 through column 7, line 7 generally describe beams from the satellite. However, there is no teaching or suggestion for providing a satellite with both a wide area broadcast downlink beam and multiple spot beams. More specifically, there is no teaching or suggestion for operating an area-wide broadcast downlink beam of the satellite for supporting point-to-point transmissions of one or more multiple spot beams of the satellite whose transmission has been exhausted. The Diekelman reference uses a different satellite to provide coverage to another satellite. As is described in claim 1, the same satellite includes both the area-wide broadcast downlink beam and the multiple spot beams.

Further, Applicants respectfully submit that the combination of the Rosen and Diekelman references is improper. For example, the Examiner alleges that "It would have been obvious to one of ordinary skill in the art at the time the invention was made to use, downlink-beam to be used to support point-to-point transmissions of one or more of the multiple spot beams whose transmission capacity has been exhausted, as taught by Diekelman, in order to provide an economically-viable satellite communication system for voice, data and video using satellite diversity to augment capacity of the system, to mitigate the effects of the network operational

issues such as the effects of satellite failure and/or satellite blockage, and to maintain service links in a cost-effective manner.

This brief explanation falls far short of the type of **explicit analysis** that is required by the Supreme Court in *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727 (2007). Absent such an express teaching or suggestion in the references, the explicit analysis and reasoning must be supplied by the Examiner. *Id.* In other words, the Examiner is required to provide explicit reasoning as to why one skilled in the art would be motivated to construct a system that uses an area-wide broadcast downlink beam to be used to support point-to-point transmissions of one or more of the multiple spot beams whose transmission capacity has been exhausted. Neither reference teaches exhausting of a multiple spot beam and supplementing the spot-beam capacity with an area wide-broadcast downlink beam. The Examiner's reasoning is unclear as to the motivation. Here, the Examiner merely notes that it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide multiple spot beams whose transmission capacity has been exhausted and fails to provide explicit analysis and reasoning as required. The Examiner's reasoning merely addresses the Diekelman reference's supplementing of satellite capacity with capacity from another satellite. More specifically, the Examiner's reasoning fails to address the use of wide-area beams used when spot-beam capacity has been exhausted.

Therefore, the combination of the Diekelman and Rosen references do not teach or suggest that an area-wide downlink beam is used to support the point-to-point transmissions of one or more multiple spot beams whose transmission capacity has been exhausted. Therefore, Applicants respectfully request the Examiner to reconsider the rejection of claim 1.

Claims 2-5 depend upon allowable independent claim 1 and are also allowable for at least the reasons set forth above.

**CONCLUSION**

In light of the remarks above, Applicants submit that all rejections are now overcome. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments, the Examiner is respectfully requested to contact the undersigned attorney.

Should any fees be associated with this submission, the Director is authorized to charge Applicant's Deposit Account No. 50-0383.

Respectfully submitted,

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